OERLIKON **MULTI SENSOR UNIT**

SENSOR UNIT FOR SHORT RANGE AIR DEFENCE

Be aware! The Oerlikon Multi Sensor Unit (MSU) is the next generation sensor unit for ground based air defence. It can be installed on a wide range of platforms and is equally suited for stationary or rapid deployment missions. The fully automated MSU is remotely controlled from the Oerlikon Skynex® control node or from a third party battle management system.
The non-rotating, software defined 3D AESA Multi Mission Radar (Oerlikon AMMR) enables superior awareness and mission flexibility. With the AMMR, the MSU achieves a high robustness even in the most trying electronic warfare environment. To support the identification of friend or foe (IFF), an interrogator with a non-rotating electronically scanning antenna is integrated. Once a target is detected, the electro-optical tracker is used to automatically verify and classify the threat using AI.
The modular architecture of the MSU permits a flexible mix of active and passive sensors. The precise target tracks provided by the MSU enable the control of modern air defence effectors such as the 35 mm Oerlikon Revolver Gun® Mk3 or the Oerlikon Twin Gun® GDF009 TREO.
Stay in control! The MSU provides a coherent air picture and total awareness at any time. It combines excellent performance for detection, acquisition and tracking of the most demanding targets, together with highly automated identification and classification capabilities. In an extended version, the MSU can also control SHORAD Surface-to-Air Missiles (SAM).

MAIN FEATURES

- Remote controlled air defence sensor unit
- Ideal for VSHORAD and SHORAD missions
- Detection of air targets up to 35 km
- Oerlikon AMMR in S-band
- Reliable detection of small targets including micro UAS and RAM targets
- Advanced ECCM features and clutter mapping
- Growth potential: EO panoramic viewing system for passive and low-level target detection
- Option: Tracking radar
- Friend-foe identification using non-rotating E-scan IFF
- EO tracking with HD cameras and laser range finders
- Reliable target classification using AI
- Operation in day, night and all-weather conditions
- Rapid deployment
- Highly modular, flexible and scalable architecture
- Advanced sensor data fusion (SDF)
- Simple integration into Skynex and other existing air defence systems

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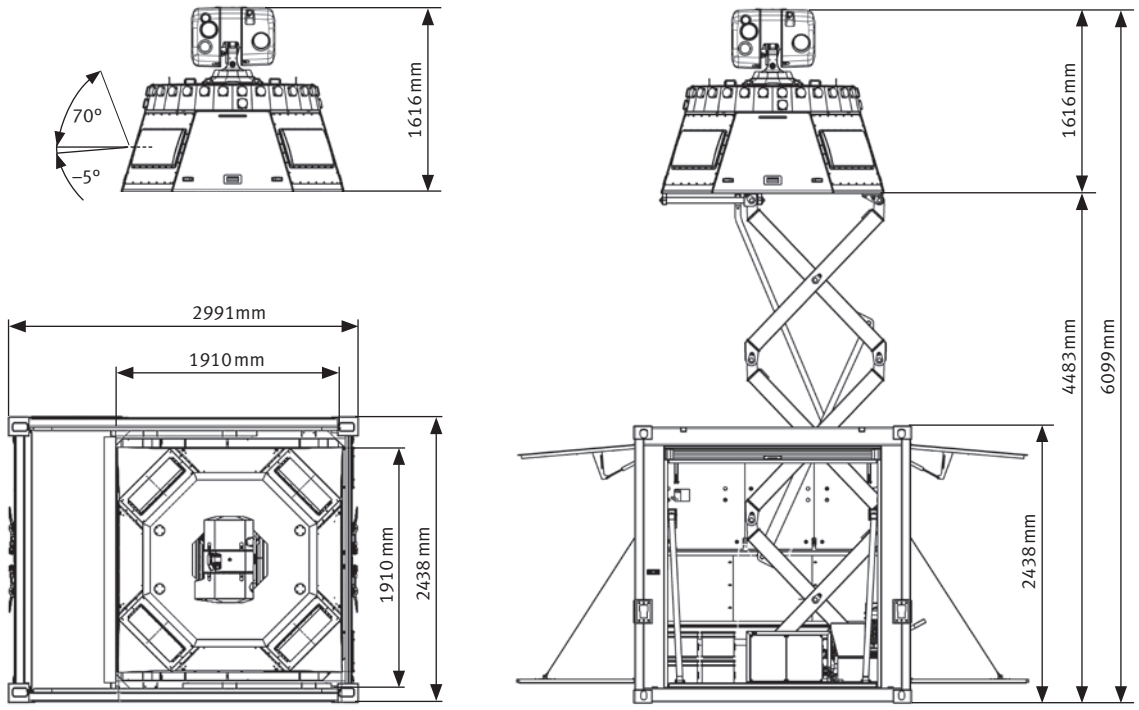

TECHNICAL CHARACTERISTICS	
Oerlikon AMMR search radar	
Technology	Non-rotating, 3D AESA
Frequency	S-band
Instrumented range	up to 35 km
Detection range for 1 m² RCS air target	≥20 km
Spatial coverage (Az/El)	360°/–5°…+70°
Track while scan (TWS)	up to 150 targets
High priority target tracks	up to 40 targets
Electro-optical (EO) tracking module	
Mounting	Stabilized 2-axis tracking mount
IR camera	Cooled MW, HD, 1.3°/4.6°/21.8°
TV camera	B/W or colour, full HD, 1°…30°
LRF	Class 1M, eye safe, 5 Hz, 20 km
Video tracker	Optimized for air targets
Spatial coverage (Az/El)	n x 360°/–5°…+85°
E-scan IFF	
Technology	Non-rotating, 360°, E-scan
Supported modes	Military (1–3), civil (A/C/S)
Optional mode	M5 level 1

Passive EO search module (growth potential)	
Architecture	Array of fixed FOV cameras
Camera type	TV only/IR only/TV+IR
Spatial coverage (Az/El)	360°/≥20°
Complete MSU	
Transport weight	≤7,000 kg
Height (transport as ISO container)	2,438 mm
Sensor height (operation)	≤6,099 mm
Length/width	2,991 mm x 2,438 mm (ISO 1D)
Setup time	≤20 min (2 persons)
Startup time	≤10 min
Power supply	Integrated PSU/External mains
Operation	Remote controlled from C2
Interface to C2	Fibre-optic cable (‹1,500 m)/radio
Transportability	Standard ISO 1D container
Deployment configuration	
Stationary	as ISO 1D container
Rapid deployment	Hook-lift platform, truck-mounted
Mobile (growth potential)	Truck-mounted

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